

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES
1 17

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 08/28/2015		2. CONTRACT NO. (If any) EP-W-11-052		6. SHIP TO: a. NAME OF CONSIGNEE HPOD	
3. ORDER NO. 0008		4. REQUISITION/REFERENCE NO. See Schedule			
5. ISSUING OFFICE (Address correspondence to) HPOD US Environmental Protection Agency Headquarters Procurement Operations Ariel Rios Building 1200 Pennsylvania Avenue, NW Washington DC 20460				b. STREET ADDRESS US Environmental Protection Agency William Jefferson Clinton Building 1200 Pennsylvania Avenue, N. W. Mail Code: 3803R	
				c. CITY Washington	d. STATE DC
				e. ZIP CODE 20460	
7. TO: (b)(4)				f. SHIP VIA	
a. NAME OF CONTRACTOR SCIENCE APPLICATIONS INTERNATIONAL CORPORATION				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
c. STREET ADDRESS 1710 SAIC DR (b)(4)				Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
d. CITY McLean		e. STATE VA	f. ZIP CODE 22102-3702		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE OAR/OAP/CCD	
11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB				12. F.O.B. POINT Destination	
13. PLACE OF a. INSPECTION b. ACCEPTANCE		14. GOVERNMENT BAL. NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	
				16. DISCOUNT TERMS	

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: (b)(4) Task Order Title: Greenhouse Gases (GHG) Reporting Program Data System, Verification, Publication and Help Desk Support Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT	19. GROSS SHIPPING WEIGHT	20. INVOICE NO.	\$2,000,000.00	17(f) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:				
	a. NAME RTP Finance Center			\$4,994,994.79	17(g) GRAND TOTAL
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center Mail Drop D143-02 109 TW Alexander Drive				
	c. CITY Durham	d. STATE NC	e. ZIP CODE 27711		

22. UNITED STATES OF AMERICA BY (Signature)

08/28/2015

Rayna D Brown

ELECTRONIC SIGNATURE

23. NAME (Typed)
Rayna Brown
TITLE CONTRACTING/ORDERING OFFICER

**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION**

PAGE NO

2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER

CONTRACT NO.

08/28/2015

EP-W-11-052

ORDER NO.

0008

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<p>This task order hereby incorporates the contract no. EP-W-11-052 terms and conditions by reference. The performance period for this task order is established pursuant to FAR 52.216-22 Indefinite Quantity (Oct 1995) clause.</p> <p>The Contractor shall perform in accordance with the attached Statement of Work (12 pages) and the accepted technical and cost proposal dated June 11, 2015 in the amount of \$4,994,994.79.</p> <p>This is a Time-and-Materials (T&M) task order with a pre-priced total ceiling price of \$4,994,994.79, which the Contractor is not authorized to exceed. The Contractor exceeds at its own risk.</p> <p>The total obligated ceiling amount for this order is \$2,000,000.00. This order is hereby incrementally funded in accordance with the FAR 52.232-22 Limitation of Funds (Apr 1984) clause.</p> <p>Administrative Contracting Officer (CO): Faye Sas (202) 564-2669 sas.faye@epa.gov</p> <p>Contracting Officer's Representative (COR): Jennifer Bohman (202) 343-9795 Bohman.jennifer@epa.gov</p> <p>Alternate COR: Kong Chiu (202) 343-9309 Chiu.kong@epa.gov</p> <p>Individuals identified in the SOW under "EPA Key Personnel" are not authorized CORs/alternate CORs.</p> <p>The Contractor is hereby authorized to use (b)(4) as a subcontractor</p> <p>Continued ...</p>					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION**

PAGE NO

3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER

CONTRACT NO.

ORDER NO.

08/28/2015

EP-W-11-052

0008

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<p>exclusively in connection with the performance of the services under this task order and shall be billed using the Contractor's approved labor rates in the contract.</p> <p>WAGE DETERMINATION The following category has been identified by the Contractor as a wage determined category:</p> <p>Administrative Assistant/Clerk II</p> <p>This category is hereby subject to the prevailing wages under the Service Contract Act (SCA) and the following wage determination with the U.S. Department of Labor (DOL):</p> <p>Wage Determination No.: 2005-2103 Revision No.: 16 Date Of Revision: 07/08/2015</p> <p>All travel (domestic and international) shall comply with the Federal Travel Regulations (FTR).</p> <p>This call order is for severable services.</p> <p>The Contractor hereby acknowledges and accepts this order by signing and dating below:</p> <p>_____</p> <p>Print Name and Title</p> <p>_____</p> <p>Signature</p> <p>_____</p> <p>Date</p> <p>TOCOR: Jennifer Bohman Max Expire Date: 08/27/2016</p> <p>Continued ...</p>					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 348 (Rev. 4/2006)
Prescribed by GSA FAR (48 CFR) 53.213(f)

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO

4

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 08/28/2015 CONTRACT NO. EP-W-11-052

ORDER NO.
0008

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	<p>Admin Office: HPOD US Environmental Protection Agency Headquarters Procurement Operations Ariel Rios Building 1200 Pennsylvania Avenue, NW Washington DC 20460 Period of Performance: 08/28/2015 to 08/27/2016</p> <p>Pre-Priced Services (Labor and Other Direct Costs (ODC)) Time-and-Materials (T&M) Estimated Labor: (b)(4) Estimated ODCs: (b)(4) Labor Hours: 43,000 Hours Requisition No: PR-OAR-15-01260, PR-OAR-15-01261, PR-OAR-15-01262</p> <p>Accounting Info: 15-16-B-58F7-101A46XQ3-2505-1558FC5725 -002 BFY: 15 EFY: 16 Fund: B Budget Org: 58F7 Program (PRC): 101A46XQ3 Budget (BOC): 2505 Job #: LGGD0000 DCN - Line ID: 1558FC5725-002 Funding Flag: Partial Funded: \$980,000.00</p> <p>Accounting Info: 15-16-B-58F7-101A46XQ3-2505-1558FC5726 -002 BFY: 15 EFY: 16 Fund: B Budget Org: 58F7 Program (PRC): 101A46XQ3 Budget (BOC): 2505 Job #: LGGDSC00 DCN - Line ID: 1558FC5726-002 Funding Flag: Partial Funded: \$20,000.00</p> <p>Accounting Info: 14-15-B-58F7-101A46XQ3-2505-1558FC5727 -002 BFY: 14 EFY: 15 Fund: B Budget Org: 58F7 Program (PRC): 101A46XQ3 Budget (BOC): 2505 DCN - Line ID: 1558FC5727-002 Funding Flag: Partial Funded: \$104,050.63</p> <p>Accounting Info: 15-16-B-58F7-101A46XQ3-2505-1558FC5727 -001 BFY: 15 EFY: 16 Fund: B Budget Continued ...</p>				2,000,000.00	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$2,000,000.00

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 348 (Rev. 4/2008)

Prescribed by GSA FPMR (48 CFR) 53.213(f)

**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION**

PAGE NO

5

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER

CONTRACT NO.

ORDER NO.

08/28/2015

EP-W-11-052

0008

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	Org: 58F7 Program (PRC): 101A46XQ3 Budget (BOC): 2505 DCN - Line ID: 1558FC5727-001 Funding Flag: Partial Funded: \$202,220.00 Accounting Info: 14-15-B-58F7-101A46-2505-- BFY: 14 EFY: 15 Fund: B Budget Org: 58F7 Program (PRC): 101A46 Budget (BOC): 2505 DCN - Line ID: - Funding Flag: Partial Funded: \$693,729.37 Footer text under form					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 348 (Rev. 4/2006)

Prescribed by GSA FAR (48 CFR) 53.213(f)

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

66

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 11/06/2015		2. CONTRACT NO. (if any) EP-W-11-052		6. SHIP TO:		
3. ORDER NO. 0009		4. REQUISITION/REFERENCE NO. PR-QAR-15-01145		a. NAME OF CONSIGNEE QAR/QAP/CCD		
5. ISSUING OFFICE (Address correspondence to) HPOD US Environmental Protection Agency Headquarters Procurement Operations Ariel Rios Building 1200 Pennsylvania Avenue, NW Washington DC 20460				b. STREET ADDRESS US Environmental Protection Agency 1200 Pennsylvania Avenue NW Mail Code: 62107J QAP/CCD		
7. TO: (b)(4)				c. CITY Washington	d. STATE DC	
8. NAME OF CONTRACTOR SCIENCE APPLICATIONS INTERNATIONAL CORPORATION				e. ZIP CODE 20460		
b. COMPANY NAME				f. SHIP VIA		
c. STREET ADDRESS 1710 SAIC DR (b)(4)				8. TYPE OF ORDER		
d. CITY McLean				<input type="checkbox"/> a. PURCHASE REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		
e. STATE VA				<input checked="" type="checkbox"/> b. DELIVERY Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.		
f. ZIP CODE 22102-3702				10. REQUISITIONING OFFICE QAR/QAP/CCD		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				12. F.O.B. POINT Destination		
11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB				15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)		
13. PLACE OF		14. GOVERNMENT B/L NO.		16. DISCOUNT TERMS		
a. INSPECTION	b. ACCEPTANCE					
17. SCHEDULE (See reverse for Rejections)						
ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: (b)(4) Task Order Title: Enhancements and Revisions to National Greenhouse Gas Data System and Publication Portal. This task order hereby incorporates the terms and conditions under contract Continued ...					
18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
21. MAIL INVOICE TO:						
a. NAME RTP Finance Center				\$102,480.75		17(i) GRAND TOTAL
b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center Mail Drop D143-02 109 TW Alexander Drive				\$102,480.75		
c. CITY Durham		d. STATE NC	e. ZIP CODE 27711			
22. UNITED STATES OF AMERICA BY (Signature) 11/06/2015 Faye Sas				23. NAME (Typed) Faye Sas TITLE: CONTRACTING/ORDERING OFFICER		

ELECTRONIC SIGNATURE

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 347 (Rev. 2/2012)
Prescribed by GSA/FAR 48 CFR 53.218(f)

ORDER FOR SUPPLIES OR SERVICES
SCH. JLE - CONTINUATION

PAGE NO

2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER
11/06/2015

CONTRACT NO.
EP-W-11-052

ORDER NO.
0009

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<p>EP-W-11-052 by reference.</p> <p>This is a time-and-materials (T&M) task order with a pre-priced total ceiling price of (b)(4)/800 direct labor hours which the contractor is not authorized to exceed. The contractor exceeds at its own risk. The contractor shall perform in accordance with the attached Statement of Work (SOW) and the accepted technical and price proposal dated 27 April 2015 for the award of task 1 and task 2 as follows:</p> <p>Task (1): Project Management (b)(4)/72 direct labor hours)</p> <p>Task (2): National Level GHG Emissions Database Development (b)(4)/728 direct labor hours)</p> <p>The total obligated ceiling amount for this task order is \$102,480.75. This task order is hereby fully funded.</p> <p>Contracting Officer's Representative (COR): Leif Hockstad (202) 343-9432 hockstad.leif@epa.gov</p> <p>Alternate Contracting Officer's Representative (Alt COR): Mausami Desai (202) 343-9381 desai.mausami@epa.gov TOCOR: LEIF HOCKSTAD Admin Office: HPOD US Environmental Protection Agency Headquarters Procurement Operations Ariel Rios Building 1200 Pennsylvania Avenue, NW Washington DC 20460 Period of Performance: 11/06/2015 to 11/06/2016</p>					
0001	<p>New Task Order Award under EPA contract EP-W-11-052 to SAIC for Enhancements and Continued ...</p>				102,480.75	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(4))

\$102,480.75

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 348 (Rev. 4/2008)
Prescribed by GSA FPMR (41 CFR) 101-11.6

ORDER FOR SUPPLIES OR SERVICES
SCHL JLE - CONTINUATION

PAGE NO

3

IMPORTANT: Mark all packages and papers with contract and/or order numbers

DATE OF ORDER
11/06/2015

CONTRACT NO
EP-W-11-052

ORDER NO
0009

ITEM NO (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	Revisions to National Greenhouse Gas Data System and Publication Portal (h)(4) 75/800 hours). IGF::OT::IGF Accounting Info: 15-16-B-58F6-101A46-2505-1558FC5666-00 1 BFY: 15 EFY: 16 Fund: B Budget Org: 58F6 Program (PRC): 101A46 Budget (BOC): 2505 DCN - Line ID: 1558FC5666-001 Funding Flag: Complete Funded: \$102,480.75					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 348 (Rev. 4/2008)
Prescribed by GSA FPMR (41 CFR) 101-11.6

Attachment 1: Statement of Work

Title: Enhancements and Revisions to National GHG Data System and Publication Portal

Contract Number: EP-W-11-052/053

Estimated Period of Performance: 12 month period of performance

Estimated Level of Effort: 1,600 direct labor hours

Contracting Officer's Representative (COR): Leif Hockstad
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW (6204S)
Washington, DC 20460
Phone: (202) 343-9432
Email: hockstad.leif@epa.gov

Alternate COR: Mausami Desai
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW (6207S)
Washington, DC 20460
Phone: (202) 343-9381
Email: desai.mausami@epa.gov

Contracting Officer (CO): Faye Sas
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW (3803R)
Washington, DC 20460
Phone: (202) 564-2669
Email: sas.faye@epa.gov

I. Introduction

The Climate Change Division (CCD) in the U.S. EPA's Office of Air and Radiation works to assess and address global climate change and the associated risks to human health and the environment. CCD plays a key role in United States and international efforts to address climate change by:

- Developing the official annual greenhouse gas (GHG) inventory for the United States, in accordance with commitments under the United Nations Framework Convention on Climate Change (UNFCCC);
- Implementing successful voluntary programs to reduce non-carbon dioxide (CO₂) emissions;
- Analyzing CO₂ and non-CO₂ greenhouse gas (GHG) emissions and economically efficient reduction, sequestration, and adaptation options;

- Communicating climate analyses and strategies to policy-makers, experts and U.S. climate negotiators;
- Building effective international capacity to analyze and reduce GHG emissions and associated air pollution, and;
- Educating the public on climate change.

This Statement of Work (SOW) supports EPA in implementing a variety of activities that are required to fulfill the mission of the CCD.

II. Background

In accordance with U.S. commitments under the UNFCCC and as part of the global effort to document national emissions of greenhouse gases and other precursor gases, the EPA compiles the U.S. GHG Inventory annually. The U.S. GHG Inventory contains emissions data across the U.S. economy through calculations conducted at the source level. The emissions data is compiled into an annual report that informs the UNFCCC and domestic stakeholders on the trends in U.S. greenhouse emissions. A datamart to store and provision national-level greenhouse gas data as compiled in the U.S. has been created to enhance the data handling procedures for compilation of the U.S. GHG Inventory. Additionally, EPA has developed an interactive tool, the Greenhouse Gas Inventory Data Explorer, on its website that provides access to data from the U.S. GHG Inventory.

Under this task order, the Contractor will assist EPA in enhancing and revising the U.S. GHG Inventory data system to store additional data elements included in the U.S. GHG Inventory report. In addition, the contractor will revise the Greenhouse Gas Inventory Data Explorer through enhanced linkages to the existing datamart which would allow further access to U.S. GHG Inventory data and the ability for external stakeholders to create custom queries on U.S. greenhouse gas emissions.

The proposed technical enhancement solutions should enable EPA to easily analyze and review data that is developed for the U.S. GHG Inventory, as well as compare it with other relevant data sets (i.e. list of applicable facilities) to facilitate data publication. These relevant data sets could include emissions data collected and published by EPA's Greenhouse Gas Reporting Program (GHGRP). In addition, the solution developed under this task order should allow real-time, or near real-time, access to data.

Data from the U.S. GHG Inventory is available via an online interface at:
<http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html>.

III. Tasks

Task 1: Project Management

The Contractor shall submit a Monthly Status Report to EPA's Contracting Officer's Representative (COR) and Contracting Officer (CO). The contractor retains primary responsibility for project management and is expected to notify the EPA immediately if

there is any reason the project begins to fall behind schedule.

Project management tasks include:

- 1) Creating and maintaining a project schedule with critical path milestones for each task. Staff selected to complete work under each task will have access to each task's relevant project schedule;
- 2) Coordinating with EPA counterparts at Office of Environmental Information, National Computing Center (NCC) and others to access staging and production server environments and other tasks necessary to meet the project schedule; and
- 3) Maintenance of an EPA accessible project management plan, schedules and other key management documents.

Deliverables and schedule under Task 1:

	Task 1 Deliverable	Due Date
Deliverable 1.1	Draft work plan outlining estimated delivery schedule	Within 2 weeks of Task Order Award
Deliverable 1.2	Final work plan and delivery schedule	Within 2 weeks of TOPO comment.

Task 2: National-level GHG Emissions Data System Enhancements and Revisions

The goal of this task is to produce enhancements to the database design based on existing data services storing US GHG Inventory emissions data. The contractor shall coordinate with EPA to review the existing inventory reference data and emissions schema and prepare documentation for areas of enhancement and necessary revisions identified through this review. The review will take into account both the existing reference data and the data handling procedures to extract, transform, and load emissions data via scripts into EPA's Staging datamart and Staging Envirofacts (EF) database.

Based on the review and feedback from the COR, the contractor will prepare draft requirements and design specifications. The contractor, under this task, shall propose design and architecture that provide enhancements necessary to store disaggregated emissions data and also, as directed by the COR, activity data and emission factors within the reference data. The contractor will coordinate with EPA extensively to ensure the enhancements to the data system meets EPA program needs. Finally, the contractor will develop, build, populate, and deploy the enhanced data system.

EPA anticipates that a mix of strategic thinking, systems architecture, and data analysis will be needed to successfully complete this task. Note that EPA will provide the expertise regarding the details of the US GHG Inventory data and enhancements that may be necessary to store additional data elements. The contractor will provide technical assistance in the design and development of the data system that meets EPA's data elements needs.

Activities under this task will include:

- 1) Developing requirements documents for an enhanced data system to store U.S. GHG Inventory data;
- 2) Developing system design and specification documents that include physical database design, final XML schema, and a logical database model;
- 3) Demonstrating how data structure would accommodate desired analytical functions such as analyzing year to year trends or comparison with other data sets;
- 4) Building the data system that conforms to the requirements and specifications documents approved by EPA;
- 5) Loading existing XML files into the data system;
- 6) Deploying system to a test environment and then the final production environment;
- 7) Maintaining a system for tracking issues, change requests, and their resolution in both the development and production environment;
- 8) Coordinating with NCC, Envirofacts, and other counterparts for system hosting;
- 9) Providing access for two EPA personnel to any source code repositories for any software tools developed or modified under this task;
- 10) Providing on-call support for data system related operations issues; and
- 11) Notifying EPA personnel of unplanned outages or issues.

Deliverables and schedule under Task 2:

	Task 1 Deliverable	Due Date
Deliverable 2.1	Draft technical requirements for additional data elements for inclusion	Within 4 weeks of Task Order Award.
Deliverable 2.2	Draft technical requirements for revisions to reference data	Within 4 weeks of COR comment.
Deliverable 2.3	Revisions to reference data	Within 4 weeks of COR comment.
Deliverable 2.4	Deployment of data system to test environment	As directed by COR
Deliverable 2.5	Deployment of data system to production data environment with US GHG Inventory data	As directed by COR
Deliverable 2.6	Final System Documentation	As directed by COR

Task 3: National-level GHG Emissions Data Publication Enhancements and Revisions

The goal of this task is to produce enhancements to the existing public interface for US GHG Inventory emissions data, the Greenhouse Gas Inventory Data Explorer (<http://www.epa.gov/climatechange/ghgemissions/inventoryexplorer/>). Under this task, the Contractor shall provide support related to designing, developing, and deploying the enhanced tool for the U.S. GHG Inventory's data webpage. The contractor, under this task, will consult with the COR in developing a list of other graphics and query options that EPA might want the tool to support. The Contractor, upon approval from the COR, will then systematically work through the list and build the data calls and graphs for Greenhouse Gas Inventory Data Explorer revisions.

Under this task, the Contractor will, upon COR approval, develop enhancements that will include transitioning the graphs and data tables available via the Greenhouse Gas Data Explorer's existing static emissions data to instead link and work from Web services available from the data system developed under Task 2. Enhancements will include design elements for HighCharts graphs to read and plot data from the XML data service. EPA anticipates that a mix of design, communication, and analytical skills will be required by the Contractor to complete this task as well as familiarity with the existing Greenhouse Gas Inventory Data Explorer.

The design should enable users to easily retrieve and customize data to fit their needs. The tool should allow the user to extract national data or to retrieve detailed information on a particular emissions source as compiled in the U.S. GHG Inventory. The tool should target IE 9.+ and must be 508 compliant. The tool is likely to employ tabular data, interactive graphics, dynamic charting and other presentation features. The tool will be targeted to the general public and therefore use general internet navigation; the general public should not require training in order to use the tool.

Activities under this task will include:

1. Developing a list of searches, queries, questions, and/or facts that are most likely to be useful to users. Sort this list to determine how graphics, information and/or queries should be presented to maximize visual appeal and encourage users to interact with the website's features;
2. Creating graphics, images, and other design elements for use in the tool to provide visual interest and supplement navigation;
3. Developing sample graphs, charts, maps, tables, and other displays that could be used to present information compiled for the U.S. GHG Inventory. Determine which aspects of the U.S. GHG Inventory's data to include in these displays, including the data parameters that would be most useful as search or filter criteria;
4. Coordinating with EPA's enterprise-level Google Analytics manager to create and assign the custom event types that will allow us to track detailed user behavior (e.g., what queries are users running).

5. Preparing comprehensive design document on enhanced navigation tools and graphics; and
6. Developing and deploying the tool to the EPA website.

Deliverables and schedule under Task 3:

	Task 3 Deliverable	Due Date
Deliverable 3.1	Review of data elements published in existing datamart and design principles for linkages	Within 3 weeks of kick off meeting
Deliverable 3.2	List of Anticipated Searches and Queries	Within 5 weeks of kick off meeting
Deliverable 3.3	Draft Requirements and Wireframes	As directed by COR
Deliverable 3.4	Final Design	As directed by COR
Deliverable 3.5	Deployment of Tool to Staging	As directed by COR
Deliverable 3.6	Deployment of Tool to Production	As directed by COR

II. Deliverables

Deliverable due dates are specified by task above. Distribution of Deliverables should be handled by sending one copy to the EPA Contracting Officer's Representative (COR).